

SPS

Purchase Order

PO Create Date: 04/07/2009

Current Date/Time: 04/08/2009 10:25:42

Raytheon

Missile Systems  
RAYTHEON RMS TUCSON  
1151 E Hermans Rd.  
TUCSON AZ 85756

Ordering Address: OA#: 0010021824

Salesperson/Attention: Lee Anne Peters  
Telephone: 626-4589 Fax:  
ARIZONA BOARD OF REGENTS  
UNIVERSITY OF ARIZONA  
888 N EUCLID AVE STE 510  
TUCSON AZ 85719

The number below must appear on all  
Packing Lists, Shipping Labels and Invoices.  
Purchase Order No.

4200155315

Version # 0

Manufacturing Plant: MN #: 0010021824  
ARIZONA BOARD OF REGENTS  
UNIVERSITY OF ARIZONA  
888 N EUCLID AVE STE 510  
TUCSON AZ 85719

Originator: THOMAS TUTTOBENE  
Phone: 520-794-9554 FAX: 520-794-5519 TUCSON, AZ  
Email: Thomas\_G\_Tuttobene@raytheon.com  
Approver Signature: *Thomas G. Tutto* Date: 4/8/09

PO Type: Firm Fixed Price  
Source Inspection Items Exist: No  
Classified Hardware Exist: No  
Foreign Offset: N  
Country 1: N/A  
PO % Offset Value: 0%  
Options: N Option Expiration Date:

Purchase Order Total: \$ 5,000.00

Currency: usd  
Taxable: See Line Items for Tax  
Liquidation Rate: 0%  
Payment Terms: Net 45 days from Invoice

Bill-To Address:  
RAYTHEON COMPANY / MS 3136  
RMS FSS AP  
PO Box 650009  
DALLAS TX 75265-0009  
For Payment Questions Call: 877-291-9990

We require an Acknowledgement.  
Sign below and return promptly to Originator of this document. This order,  
including the terms and conditions of purchase referenced herein, are fully  
accepted and agreed to. Any deviations must be noted.

Signature: *Lee Anne Peters*  
Date: 5/14/09 Lee Anne T. Peters  
Contract Officer

RAYTHEON COMPANY TERMS AND CONDITIONS AND PURCHASE ORDER (PO) ATTACHMENTS (COLLECTIVELY, THE "PO ATTACHMENTS") WERE PREVIOUSLY MADE AVAILABLE TO YOU AND ARE INCORPORATED HEREIN, SEE BELOW FOR THE COMPLETE STATEMENT OF THE RAYTHEON TERMS AND CONDITIONS APPLICABLE TO THE PO.

Header text

TP-103 (12/05) MODIFICATION OF PO TERMS & CONDITIONS  
Attachment A, TCM 0010021824 (06/06), Terms and Conditions Modifications are incorporated herein.  
Job ID : 03120986037

| Material No: Cage Code/<br>Material Short Description | Dwg.<br>Rev.             | Parts<br>Rev.  | Purchase Part Number /<br>SIS STAMP Rev. | Order<br>Quantity       | Order<br>Price     | Per<br>Unit      | Ord Price<br>Unit   | Est | Extended<br>Price |
|---|--------------------------|----------------|--|-------------------------|--------------------|------------------|---------------------|-----|-------------------|
| TECHNICAL SERVICES TECHNICAL SERVICES fr              |                          |                |  | 1.000                   | 5,000.00           | 1                | Activ unit          | NO  | 5,000.00          |
| Line  | Prime<br>Contract Number | DPAS<br>Rating | Source<br>Insd.                          | Class.<br>H'ware<br>No. | Agree.<br>Item No. | Delivery<br>Date | Tax Status - Tax ID |     |                   |

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06/01/2009 Exempt

None No

00010

**Item text**

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To Provide Technical Services as detailed in Statement of Work: Raytheon Silent UAS Specification, Rev - , dated 03/12/2009.

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Period of Performance: ARO through 06/01/2009

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Total Net Value Excl. Tax USD 5,000.00

**Any Information Below Pertains to All Items on this Purchase Order**

Any data submittals provided by the Seller shall be identified with the respective request for quotation or purchase order number.

THE FOLLOWING RAYTHEON COMPANY TERMS AND CONDITIONS AND PURCHASE ORDER (PO) ATTACHMENTS (COLLECTIVELY, THE "PO ATTACHMENTS") WERE PREVIOUSLY MADE AVAILABLE TO YOU AND ARE INCORPORATED HEREIN AS IF FULLY SET FORTH IN THIS DOCUMENT:

- (1) GENERAL TERMS AND CONDITIONS OF PURCHASE TC-001 (04/09)[applicable to all purchase orders];
- (2) GENERAL TERMS AND CONDITIONS OF PURCHASE - SUPPLEMENT 1, TC-002 (04/09) [applicable only to orders for noncommercial products or services in support of a U.S. Government prime contract or higher-tier subcontract];
- (3) GENERAL TERMS AND CONDITIONS OF PURCHASE - SUPPLEMENT 2, TC-003 (04/09) [applicable only to orders for noncommercial products or services in support of a U.S. Government Department of Defense prime contract or higher-tier subcontract];
- (4) PURCHASE ORDER ATTACHMENT TC-019 (10/03) [applicable to all purchase orders]; and
- (5) PURCHASE ORDER ATTACHMENT TC-UPDATE (04/09) [applicable only to orders in support of a U.S. Government agency or a U.S. Government Department of Defense prime contract or higher-tier subcontract].

ANY MODIFICATIONS TO THE PO ATTACHMENTS MUST BE EXPRESSLY ACCEPTED BY RAYTHEON AND INCORPORATED INTO THIS PO. UNLESS OTHERWISE NOTED, THE REVISION DATE OF THE TC-UPDATE IN EFFECT AS OF THE DATE THIS PO WAS ISSUED TO THE SELLER SHALL APPLY.

ALL PO ATTACHMENTS ARE ACCESSIBLE VIA THE FOLLOWING URL: <http://www.raytheon.com/connections/supplier/terms/index.html>

ALL APPLICABLE RAYTHEON QUALITY NOTES (RQNs) ARE ACCESSIBLE VIA THE FOLLOWING URL: <http://qnotes.raytheon.com/>

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NATIONAL DEFENSE RATED ORDERS: IF THIS IS A RATED ORDER CERTIFIED FOR NATIONAL DEFENSE USE, YOU ARE REQUIRED TO FOLLOW ALL THE PROVISIONS OF THE DEFENSE PRIORITIES AND ALLOCATIONS SYSTEM REGULATION (15 CFR 700 ET SEQ.). ALL RATED ORDERS MUST BE ACKNOWLEDGED OR REJECTED AS FOLLOWS:

(A) DO RATED POS MUST BE ACKNOWLEDGED (OR REJECTED) WITHIN 15 WORKING DAYS AFTER ORDER RECEIPT.

(B) DX RATED POS MUST BE ACKNOWLEDGED (OR REJECTED) WITHIN 10 WORKING DAYS AFTER ORDER RECEIPT.

(C) REJECTION OF DO OR DX ORDERS MUST BE IN WRITING, GIVING THE SPECIFIC REASON FOR THE REJECTION.

(D) COMMENCEMENT OF PERFORMANCE OF THE WORK CALLED FOR BY THIS PO IN THE ABSENCE OF SELLER'S WRITTEN ACKNOWLEDGEMENT THEREOF SHALL BE DEEMED ACCEPTANCE OF THIS PO AS WRITTEN.

IF BOTH RATED AND UNRATED QUANTITIES ARE REFLECTED IN THIS ORDER, YOU ARE ONLY REQUIRED TO FOLLOW THE DPAS REGULATION AS IT PERTAINS TO THE RATED QUANTITY.

PACKAGING: FOR ORDERS REQUIRING PRODUCT DELIVERIES, IN ADDITION TO COMPLYING WITH ALL APPLICABLE RQNS, SUPPLIER SHALL ENSURE THAT ALL DELIVERABLE ITEMS ARE ADEQUATELY PROTECTED TO PREVENT DAMAGE FROM SHIPPING AND HANDLING. UNLESS OTHERWISE SPECIFIED HEREIN, INDIVIDUAL ITEMS CONTAINED IN A LARGER SHIPMENT THAT MAY BE DAMAGED BY ITEM-TO-ITEM CONTACT SHALL BE INDIVIDUALLY WRAPPED, BAGGED, OR OTHERWISE ADEQUATELY PROTECTED FROM SUCH DAMAGE.

PAYMENT TERM: PAYMENT TERMS WILL BE CALCULATED FROM THE DATE A PROPER, COMPLETE, AND ACCURATE INVOICE IS RECEIVED BY RAYTHEON FINANCE SHARED SERVICES (FSS) ACCOUNTS PAYABLE.

TP-453 (02/08) TP STATEMENTS, PURCHASE ORDER ATTACHMENTS & COMMENCEMENT OF PAYMENT TERMS

(02/08) UNLESS OTHERWISE STATED, NEW AWARDS CITING ATTACHMENT TC-001/PR-07, ARE ALSO DEEMED TO INCLUDE THE LATEST ISSUE OF T-RMS, WHEREAS, FOR MODS/CHANGE ORDERS, EXISTING TERMS & CONDITIONS (E.G. ATTACHMENTS, TP-STMTS, ETC.) REMAIN UNCHANGED.

TP STATEMENTS (e.g. TP-502, etc.) ARE RMS CLAUSES WHICH PRINTED IN FULL TEXT PRIOR TO 11/1/00. NOW, HOWEVER, MANY WILL BE INCORPORATED BY NUMBER & DATE ONLY, WITH THE OFFICIAL TEXT BEING THAT FOUND IN THE #TP STATEMENTS LIST# DOCUMENT ON THE WEB SITE IDENTIFIED BELOW, BUT WHERE ACTUALLY PRINTED ON THE PO, THE PO TEXT IS OFFICIAL. OFFICIAL TEXT FOR STATEMENTS WITH NO DATE OR DATES EARLIER THAN THOSE ON THE CURRENT TP #LIST#, CAN BE FOUND ON PREVIOUS #LISTS# UNDER ARCHIVES.

APPLICABLE ENGINEERING/PURCHASE ORDER ATTACHMENTS/TP STATEMENTS ARE IN SELLER'S POSSESSION. MOST ARE ACCESSIBLE ON THE INTERNET WEB SITE AT THE FOLLOWING URL ADDRESS (NOTE ADDRESS ENTRY MUST BE ENTERED IN LOWER CASE), HOWEVER IF NEEDED, OBTAIN HARD COPIES FROM BUYER.

[HTTP://WWW.ESEB.RAYTHEON.COM/TANDC](http://WWW.ESEB.RAYTHEON.COM/TANDC)

TP-439 (12/05) DELIVERY DATE

(12/05) FOR U.S. SUPPLIERS, THE DELIVERY DATE LISTED ON THE PURCHASE ORDER IS THE DATE THE SHIPMENT MUST ARRIVE ON THE RAYTHEON DOCK.

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# Raytheon

March 12, 2009

Exhibit A - Rev -

## Statement of Work

### Raytheon Silent UAS Specification

#### Raytheon Silent UAS Specification

Need: A tactical sized UAS that minimizes acoustics is required that can carry EO, IR and Laser designator payloads for ISR missions.

Phase 1 - Class Design Study for an aircraft to meet the below requirements (1 semester)

Phase 2 - Class project to build/refine the best design or design subsystem from Phase 1

#### Specifications:

- Endurance - at least 6.0 hours
- Payload weight - 25 lbs
- Payload power - continuous 600W power at 28 VDC throughout the flight
- Payload volume - 1.2 cubic feet (2074 cubic inches)
- Max Ceiling - 10,000 ft
- Max speed (O) - 70 kts, Cruise Speed (O) 35 -70 kts, Stall Speed < 35 kts
- Total aircraft weight (including payload/batteries/fuel) should be less than 150 lbs
- Ground launch - rail launcher

#### Focus areas:

- Examine the contributors to aircraft acoustics and propagation through the atmosphere
- Focus on innovative technologies to minimize acoustics: propulsion technologies, vehicle architecture, advanced power sources, active and passive acoustic signature reduction techniques
- Examine tradeoffs between requirements: altitude versus acoustic levels, payload power versus endurance, payload weight versus power, etc.